REMARKS

The Applicants submit the current Amendment in conjunction with a Request for Continued Examination of the present application filed concurrently with this Amendment. By this amendment, changes have been made in certain claims as set forth above to overcome the Examiner's rejections set forth in the Final Office Action. Claims 1-15 remain in the application for reconsideration by the Examiner. The Examiner's allowance of all pending claims is earnestly solicited.

Within the first claim group, claim 1 stands rejected under Section 102(b) as anticipated by Vaitzblit (5,528,513). Dependent claims 2, 3, 6 and 8 stand rejected under Section 103(a) as unpatentable over Vaitzblit. Claims 4 and 7 stand rejected under Section 103(a) as unpatentable over Vaitzblit in view of Courtright (6,157,963), and claim 5 stands rejected under Section 103(a) as unpatentable over Vaitzblit in view of Courtright and further in view of Joffe (6,014,367).

To further define the invention over the cited art, the Applicants have amended claim 1 as set forth above in the marked-up version of the claim. In particular, the Applicants have amended the preamble claiming an integrated circuit structure for controlling data processing by a shared network resource. The first circuit module implements a plurality of scheduling schemes, including a first scheme and a second scheme. In the second paragraph, the Applicants now claim, "a second circuit module for selecting an enabled scheduling scheme from among the plurality of scheduling schemes, wherein the network resource processes data according to the enabled scheduling scheme, wherein responsive to the first scheme enabled the shared network resource services all network users by successively processing a limited amount of data from each network user, wherein the data processing priority determines the order in which the shared network resource processes data, and wherein responsive to the second scheme enabled all data from a higher priority network user is processed before processing data from lower priority network users." Support for this change can be found in Figure 1 and the accompanying specification text.

Vaitzblit discloses a scheduling process operating in a hierarchical manner with isochronous tasks having the highest priority followed by real time and then general-purpose tasks. The Vaitzblit scheduler applies a round robin priority scheme to the general purpose and real time tasks and a weight monotonic scheduling algorithm to the isochronous tasks. At a minimum, Vaitzblit does not disclose or suggest selecting an enabled scheme and processing data according to the enabled scheme, "wherein responsive to the first scheme enabled the shared network resource services all network users by successively processing a limited amount of data from each network user, wherein the data processing priority determines the order in which the shared network resource processes data, and wherein responsive to the second scheme enabled all data from a higher priority network user is processed before processing data from lower priority network users."

Dependent claims 2, 3, 4, 7 and 8 have been amended, as set forth above, for consistency with the amendments to claim 1 from which they depend. It is respectfully submitted that each of the dependent claims 2-8, depending from amended independent claim 1, includes one or more elements that further distinguish the invention over the art of record. These claims should therefore be in condition for allowance.

In the second claim group claims 9-11, 13 and 14 are rejected under Section 103(a) as unpatentable over Vaitzblit in view of Courtright and in view of Calamvokis. Claim 12 stands rejected under Section 103(a) as unpatentable over Vaitzblit in view of Courtright and further in view of Joffe (6,014,367).

To further distinguish independent claim 9 from the art of record, the Applicants have amended the claim as set forth above. In particular, the last paragraph now claims, "a class selector for determining the data to be serviced in response to the eligible queue output signal from each one of said plurality of scheduling blocks and further in response to the first or the second enabled scheduling scheme, wherein responsive to the first scheme enabled the shared network resource services all network users by successively processing a limited amount of data from each network user, wherein the data processing priority determines the order in which the shared network resource processes data, and wherein responsive to the second scheme enabled all data from a higher priority network user is processed before processing data from lower priority network users."

The comments above relative to Vaitzblit also apply to the rejection of claim 9. Further, the combination of Vaitzblit, Courtright and Calamvokis, assuming the combination is permissible, does not disclose or suggest the Applicants' invention as set forth in claim 9.

Courtright "prioritize[s] and schedule[s] . . . I/O requests in accordance with a scheduling algorithm." At a minimum, Courtright does not disclose, suggest or motivate, "a controller for supplying a signal indicating one or more selected scheduling schemes" as set forth in the Applicants' claim 9.

Calamvokis discloses, "an ATM switch with multicast capability that internally uses input and output identifiers to identify the cell input and output streams." Calamvokis' data switch implements three different quality of services queues for an ATM cell, and places cell identifying information in the appropriate queue according to information in the message (see column 30, lines 50-53).

Even when considered collectively, the Vaitzblit, Courtright and Calamvokis references do not disclose the elements of the Applicants' invention as set forth in amended claim 9. There is also no teaching, suggestion, or motivation as to how one might combine the Vaitzblit, Courtright and Calamvokis references to disclose the Applicants' invention, nor how the resulting combination could be made workable. Vaitzblit and Courtright relate generally to scheduling tasks, while Vaitzblit is specifically concerned with continuous media files. Calamvokis is distinguished from both Vaitzblit and Courtright in that it discloses a technique for multicasting ATM data streams. Since the three references relate to different technologies, they are not combinable according to the rules of reference combinations.

The Examiner's statement setting forth his rationale for permitting the combination of Vaitzblit, Courtright and Calamvokis is not persuasive. It is not sufficient to merely suggest that the scheduler can act as a class selector, as this rationale utilizes the Applicant's invention to motivate the combination. Instead, at least one of the references must itself disclose or motivate the combination.

Dependent claims 10-14, depending from claim 9 and rejected as set forth above, each include one or more elements that further distinguish the invention over the art of record. These claims should therefore be in condition for allowance. Dependent claim 11 has been amended to comport with the amendments to claim 9 from which it depends.

Claim 15 has been rejected under Section 103(a) as unpatentable over Vaitzblit.

It is respectfully submitted that amended claim 15 is allowable over the art as cited. Vaitzblit lacks any disclosure, suggestion or motivation related to the three steps of the Applicants' method claim 15. In particular, Vaitzblit lacks any disclosure of a user-selectable scheduling scheme. Vaitzblit simply processes data in the isochronous class after which "the scheduler 53 alternates between the real-time and the general-purpose classes using a weighted round-robin scheme." The Applicants claim two distinct scheduling schemes. According to the first scheme selected, all data from the plurality of subscribers of a higher priority subscriber class is processed before processing data from subscribers of lower priority subscriber classes. According to the second scheme, data received from subscribers of the plurality of subscriber classes within at least the highest priority subscriber class is processed first, then data received from subscribers within the remaining subscriber classes is processed according to a round robin scheduling scheme. Vaitzblit lacks any disclosure, motivation or suggestion of determining the user selected scheduling scheme and implementing the determined scheme. Instead, Vaitzblit always follows the data processing hierarchy of isochronous, real-time, and general-purpose class processing.

Claim 16 stands rejected under Section 102(b) as anticipated by Vaitzblit.

The Applicants have cancelled claim 16, reserving the right to prosecute this claim or a similar claim in a continuing application. Cancellation of this claim is not to be construed as an admission of the validity of the rejection or the applicability of the cited art.

It is believed that the claims as presented herein in conjunction with the Request for Continued Examination distinguish the invention from the art of record. It is therefore respectfully requested that the Examiner reconsider his rejections and issue a Notice of Allowance for all claims pending in the application.

If a telephone conference will assist in clarifying or expediting this Amendment or the claim changes made herein, the Examiner is invited to contact the undersigned at the telephone number below.

Respectfully submitted,

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CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing Amendment is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9th day of December 2005.

John L. DeAngelis